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2631

PTO/SB/21 (09-04)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/099,906-Conf. #3614
	Filing Date	March 14, 2002
	First Named Inventor	John H. Oates
	Art Unit	2631
	Examiner Name	J. A. Torres
Total Number of Pages in This Submission	Attorney Docket Number	102323-0092

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form  <input checked="" type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment/Reply  <input type="checkbox"/> After Final  <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input checked="" type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Reply to Missing Parts/Incomplete Application  <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s)  <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition  <input type="checkbox"/> Petition to Convert to a Provisional Application  <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Request for Refund  <input type="checkbox"/> CD, Number of CD(s) _____  <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC  <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences  <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)  <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter  <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):  Return Receipt Postcard (in duplicate) Check in the amount of \$180.00 Publications as cited herein
Remarks		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT		
Firm Name	NUTTER MCCLENNEN & FISH LLP	
Signature		
Printed name	David J. Powsner	
Date	5/8/06	Reg. No. 31,868

Transmittal	
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
Dated: 5/8/06	Signature:  (David J. Powsner)



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<b>FEE TRANSMITTAL</b> <b>For FY 2005</b>		<b>Complete if Known</b>	
		Application Number	10/099,906-Conf. #3614
		Filing Date	March 14, 2002
		First Named Inventor	John H. Oates
		Examiner Name	J. A. Torres
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27		Art Unit	2631
<b>TOTAL AMOUNT OF PAYMENT</b>	<b>(\$)</b> 180.00	Attorney Docket No.	102323-0092

**METHOD OF PAYMENT** (check all that apply)

☒ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_

☐ Deposit Account Deposit Account Number: 141449 Deposit Account Name: \_\_\_\_\_

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee  
☐ Charge any additional fee(s) or underpayment of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

**FEE CALCULATION**

**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

<u>Total Claims</u>	<u>Extra Claims</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>	<u>Multiple Dependent Claims</u>
_____	_____	_____	_____	<u>Fee (\$)</u> <u>Fee Paid (\$)</u>
_____ - = _____ x _____ = _____				
<u>Indep. Claims</u>	<u>Extra Claims</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>	
_____	_____	_____	_____	
_____ - = _____ x _____ = _____				

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

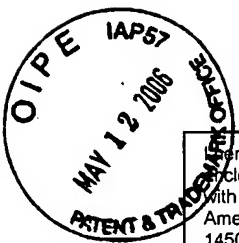
<u>Total Sheets</u>	<u>Extra Sheets</u>	<u>Number of each additional 50 or fraction thereof</u>	<u>Fee (\$)</u>	<u>Fee Paid (\$)</u>
_____	_____	_____	_____	_____
_____ - 100 = _____ /50 _____ (round up to a whole number) x _____ = _____				

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)	
Other (e.g., late filing surcharge): 1806 Submission of an Information Disclosure Statement	180.00

<b>SUBMITTED BY</b>	
Signature	Registration No. 31,868 Telephone (617) 439-2000
Name (Print/Type) David J. Powsner	Date 5/8/06

<b>Fee Transmittal</b>	
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the U.S. Postal Service on the date shown below with sufficient postage as First Class Mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.	
Dated: 5/8/06	Signature: _____ (David J. Powsner)



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Dated: 5/6/06

Signature: [Signature]

(David J. Powsner)

Docket No.: 102323-0092  
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
John H. Oates

Application No.: 10/099,906

Confirmation No.: 3614

Filed: March 14, 2002

Art Unit: 2631

For: WIRELESS COMMUNICATION SYSTEMS  
AND METHOD FOR LONG-CODE  
COMMUNICATIONS FOR  
REGENERATIVE MULTIPLE USER  
DETECTION INVOLVING IMPLICIT  
WAVEFORM SUBTRACTION

Examiner: J. A. Torres

**INFORMATION DISCLOSURE STATEMENT (IDS)**

MS Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the publications listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the publications be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed more than three months after the U.S. filing date, OR more than three months after the date of entry of the national stage of a PCT application, AND after the mailing date of the first Office Action on the merits, whichever occurs first, but before the mailing date of a Final Office Action or Notice of Allowance (37 CFR 1.97(c)).

05/15/2006 AKELECH1 00000002 10099906

01 FC:1806

180.00 OP

Applicant has not submitted copies of each cited U.S. patent and U.S. patent application as required by 37 CFR 1.98(a)(2)(i), amended October 2004, as the U.S. Patent and Trademark Office has waived this requirement for all U.S. patent applications. Applicant submits herewith copies of foreign and non-patents in accordance with 37 CFR 1.98(a)(2).

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in § 1.56 (b).

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed publications.

Our check in the amount of \$180.00 covering the fee set forth in 37 CFR 1.17(p) is enclosed. The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 141449, under Order No. 102323-0092.

Dated: 5/6/06

Respectfully submitted,

By 

David J. Powsner

Registration No.: 31,868

NUTTER MCCLENNEN & FISH LLP

World Trade Center West

155 Seaport Boulevard

Boston, Massachusetts 02210-2604

(617) 439-2717

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Attorney for Applicant



Application No. (if known): 10/099,906

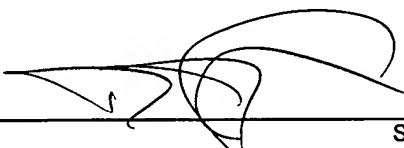
Attorney Docket No.: 102323-0092

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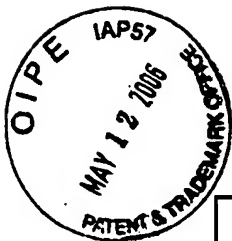
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31,868  
Registration Number, if applicable

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Telephone Number

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IDS (Citation) by Applicant (2 pages)



PTO/SB/08a/b (07-05)

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<b>Substitute for form 1449A/B/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/099,906-Conf. #3614		
		Filing Date	March 14, 2002		
		First Named Inventor	John H. Oates		
		Art Unit	2631		
		Examiner Name	J. A. Torres		
Sheet	1	of	1	Attorney Docket Number	102323-0092

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
	AA*	US-6,018,317	01-25-2000	Dogan et al.	
	AB*	US-6,370,130	04-09-2002	Zhou et al.	
	AC*	US-6,570,864	05-27-2003	Kim et al.	
	AD*	US-6,801,565	10-05-2004	Bottomley et al.	
	AE*	US-6,842,480	01-11-2005	Yang et al.	
	AF*	US-6,154,443	11-28-2000	Huang et al.	
	AG*	US-6,600,729	07-29-2003	Suzuki	
	AH*	US-6,754,805	06-22-2004	Juan	
	AI*	US-6,647,059	11-11-2003	Faruque	
	AJ*	US-6,782,036	08-24-2004	Dowling et al.	
	AK*	US-5,757,791	05-26-1998	Kanterakis et al.	
	AL*	US-6,127,973	10-03-2000	Choi et al.	
	AM*	US-2004/0213329A1	10-28-2004	Takashi et al.	
	AN	US-2002/0118728A1	09-29-2002	Mohseni, Mohammad J.	
	AO	US-2003/0058929A1	03-27-2003	Cox, Earl C. et al.	
	AP	US-2003/0206577A1	11-06-2003	Liberti, Joseph Charles Jr. et al.	
	AQ	US-2002/0122392	09-05-2002	Elezabi, Ayman	
	AR*	US-2003/0091058	05-15-2003	Oates	
	AS*	US-2003/0103558	06-05-2003	Oates	
	AT*	US-2003/0099225	05-29-2003	Oates	
	AU*	US-2003/0099224	05-29-2003	Oates	
	AV*	US-2003/0091106	05-15-2003	Oates	
	AW*	US-2003/0076875	04-23-2003	Oates	
	AX*	US-2003/0091102	05-15-2003	Oates	
	AY*	US-2003/0202566	10-30-2003	Oates	
	AZ*	US-2003/0198197	10-23-2003	Oates	
	AA1*	US-2003/0202559	10-30-2003	Oates	
	AB1*	US-2003/0128739	07-10-2003	Oates	
	AC1*	US-2003/0191887	10-09-2003	Oates	
	AD1*	US-2003/0231702	12-18-2003	Oates	
	AE1*	US-6,697,973	02-24-2004	Baumeister, IV et al.	
	AF1*	US-5,530,877	06-25-1996	Hanaoka	
	AG1*	US-6,948,100	09-20-2005	Sekiguchi et al.	
	AH1*	US-6,105,148	08-15-2000	Chung et al.	
	AI1*	US-6,311,296	10-30-2001	Congdon	
	AJ1*	US-6,518,980	02-11-2003	DeMotte et al.	
	AK1*	US-6,014,408	01-11-2000	Naruse et al.	
	AL1*	US-5,014,235	05-07-1991	Morton	
	AM1*	US-5,566,171	10-15-1996	Levinson	
	AN1*	US-6,122,309	09-19-2000	Bergstrom et al.	
	AO1*	US-3,996,455	12/1976	Schaefer et al.	
	AP1*	US-6,282,233	08-28-2001	Yoshida	
	AQ1*	US-20020051433-A1	12-13-2005	Affes et al.	
	AR1*	US-20010053177-A1	12-20-2001	Papasakellariou	
	AS1*	US-6,470,000	10-22-2002	Burns et al.	

Examiner Signature		Date Considered	
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PTO/SB/08a/b (07-05)

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				Application Number	10/099,906-Conf. #3614
				Filing Date	March 14, 2002
				First Named Inventor	John H. Oates
				Art Unit	2631
				Examiner Name	J. A. Torres
Sheet	1	of	1	Attorney Docket Number	102323-0092

	AT1*	US-6,816,541	11-09-2004	Schmidl	
	AU1*	US-6,546,026	04-08-2003	Goeddel	
	AV1*	US-5,576,715	11-19-1996	Litton et al.	
	AW1*	US-5,812,843	09-22-1998	Yamazaki et al.	
	AX1*	US-5,809,262	09-15-1998	Potter	
	AY1*	US-6,161,209	12-12-2000	Moher et al.	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	MM-DD-YYYY			
	BA	DE-198 41 578 A1	03-16-2000			
	BB	EP-0 982875 A2	01-03-2000			

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \* CITE NO.: Those application(s) which are marked with an asterisk (\*) next to the Cite No. are not supplied (under 37 CFR 1.98(a)(2)(iii)) because that application was filed after June 30, 2003 or is available in the IFW. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	CA	Microsoft Corporation, Microsoft Computer Dictionary, 2002, Microsoft Press, Fifth Edition, pages 326 and 419.	
	CB	S.L. Miller and A. N. Barbosa, "A Modified MMSE Receiver for Detection of DS-CDMA Signals in Fading Channels", 1996, IEEE, Proc. MILCOM '96, pp. 898-902.	
	CC	Verdu, "Multiuser Detection", 1998, Cambridge, pp19-66; 154-213.	

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

Examiner Signature		Date Considered	
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